## ABSTRACT OF THE DISCLOSURE

A tube magnetron for a vacuum coating applications such as plasma sputtering is provided with a hollow rotating tube target arrangement and a magnet system. The hollow rotating tube target arrangement has longitudinally extended target plates that are fixed to a target support. The target plates in cross section are arranged adjacent to each other to form a polygon. The magnet system generates a magnetic field which extends through the tube target arrangement. The magnet system is configured so that generated magnet field has in cross section two maxima arranged in the axial longitudinal direction of the tube target arrangement. The tube magnetron is configured for use with sputtering targets that are in the form of target plates. The target plates may be made from ceramics, ceramic-like and/or high-melting point materials. Materials such as ITO, zinc oxide, silicon can be efficiently and uniformly sputter coated on substrates.

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